

42 SECONDS * PER PRECINCT TO ELECTRONICALLY COUNT **ALL** VOTES ON EVERY PAPER BALLOT



*Average time per precinct —
November 1962 General Election
Kern County, California

**HAMILTON COUNTY
FIELD-TESTED
TWO COMPETITIVE
VOTE-COUNTING
METHODS BEFORE
DECIDING ON COLEMAN**

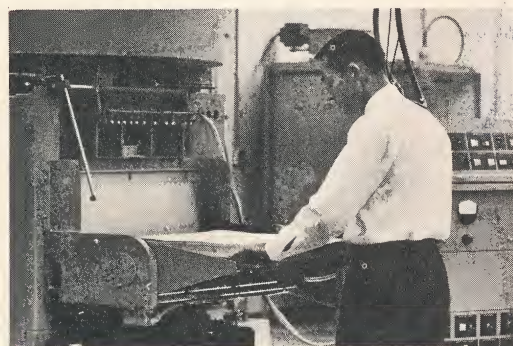
Why Cincinnati (Hamilton County) Chose Coleman Electronic Vote Tally System



Pictured is one complete Vote Tally System. Two ballot readers working alternately feed data from the ballots to an electronic data processor, which produces precinct totals on IBM cards.



It is no longer necessary for a precinct board to spend most of the night manually counting the precinct votes.



Now the paper ballots from the same precinct can be counted in 40 to 50 seconds using the Coleman System.

Coleman Selected After Field-Testing Two Other Competitive Vote Counting Methods

Voting machines and vote-punching devices were field-tested under actual election conditions in Hamilton County and Cincinnati in efforts to find a solution to the need for a fast and accurate vote tally method for the more than 430,000 voters in the county (Hamilton County owns 260 voting machines outright; leased 100 vote-punch units for the 1962 election.) Careful evaluation of the several modern methods of vote tallying resulted in the adoption of the Coleman Electronic Vote Tally System. Coleman was selected over other types of equipment because of its lower first cost, lower operating costs, retention of traditional paper ballots, and no change in voter habits. Two Coleman Systems will be installed for use in the 1964 elections and subsequent elections.

Coleman Provides Long-Sought Solution

The Coleman Vote Tally System provides the long-sought answer to the problem of counting thousands — even millions — of votes at election time. The Vote Tally System is not a voting machine. It is a modern data processing system that reads paper ballots at high speed and counts the votes marked on each ballot by the voter. It performs automatically the vote counting task which up to now has been done manually by thousands of clerks and helpers. A product of over five years of design development, and proven in actual election use, it will "count" at the rate of 600 ballots per minute, each ballot containing as many as 10 columns and with hundreds of candidates and propositions. Ballots can range from 9" to 30" in width, and combinations of sizes can be used in the same election.

6 BIG BENEFITS WITH COLEMAN

plus the advantages of paper ballots

1. eliminates manual counting

Experienced election officials estimate human counting errors due to fatigue and monotony of the old-fashioned manual tally as high as two or three percent in many instances. The Coleman Electronic Vote Tally System has been certified 99.999% accurate. By eliminating manual counting, the many advantages of paper ballots can be retained.

2. electronic speed

Ballots flash through the Coleman Ballot Readers at the rate of 600 per minute. It takes less than a minute to tally a typical precinct. Paper ballots in any combination of sizes up to 30" wide, containing hundreds of candidates and propositions, can be processed at this 10-per-second speed. Faster official returns, too.

3. large cash savings

Lower initial investment over mechanical voting machines — some communities can realize a first-cost savings of millions of dollars. This, plus far less space required for equipment. And Coleman completely eliminates the cost and handling problems of delivery and pick-up of cumbersome voting machines to and from the polling places.

4. greater voter convenience

"In any consideration of voting machines, voter convenience is of paramount importance. It is not good public policy to discourage people from voting, even if it will speed up the count." (From a report by a committee of the California Legislature.) Extra mechanical voting machines cost a lot. Extra voting booths cost little. With Coleman, there are no voter bottlenecks to discourage voting. Coleman provides voter convenience and also speeds up the count.

5. no change in voter habits

The use of paper ballots retains voter habits — good turnout at the polls, and good participation in voting on all offices and questions on the ballot. Recent studies show that when voting machines are used, voter habits change. There is often less turnout at the polls and there is a drop-off in participation in voting the entire ballot.

6. original ballot recount

Paper ballots provide an important advantage over machine voting — they provide a permanent record of each voter's selections. The original documents — the ballots — are available for inspection and for recounts if election results are challenged. There can be no true recount of an election when mechanical voting machines are used. The only figures available are the voting machine totals, which must be accepted as they are and with no way of checking their accuracy.



COLEMAN ELECTRONIC SYSTEMS

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Paper Ballots proved Best for Voters & Candidates

Greater voter turn-out . . . more evenly voted ballot top to bottom

Recent studies of voting records for communities using mechanical voting machines have uncovered an alarming downward trend. It has been found that there is a very noticeable drop-off in the vote for other than the most important offices on the ballot when voting machines are used; in contrast to the vote cast in communities using paper ballots. This is demonstrated in the chart below, showing the participation by California voters who went to the polls in the November 1962 election. San Francisco, which has used mechanical voting machines for many years, is compared with the state-wide average for California (55 of the 58 counties use paper ballots), and with Kern County, where the Coleman Vote Tally System was used. Similar results were found for prior elections, extending back over many years.

A report issued by a Committee of the California Legislature, covering California elections from 1942 to 1960, shows the percentage of voters going to the polls who voted on the major ballot propositions. The participation by voters using voting machines was without exception lower than the participation by voters using paper ballots.

The use of paper ballots consistently results in a larger total vote for many candidates and propositions on the ballot. Similar findings have been reported from Iowa, Michigan, Minnesota, and Ohio. In Iowa, for example, the drop-off in the vote on questions, as a result of using voting machines, has been as high as 50%. A report

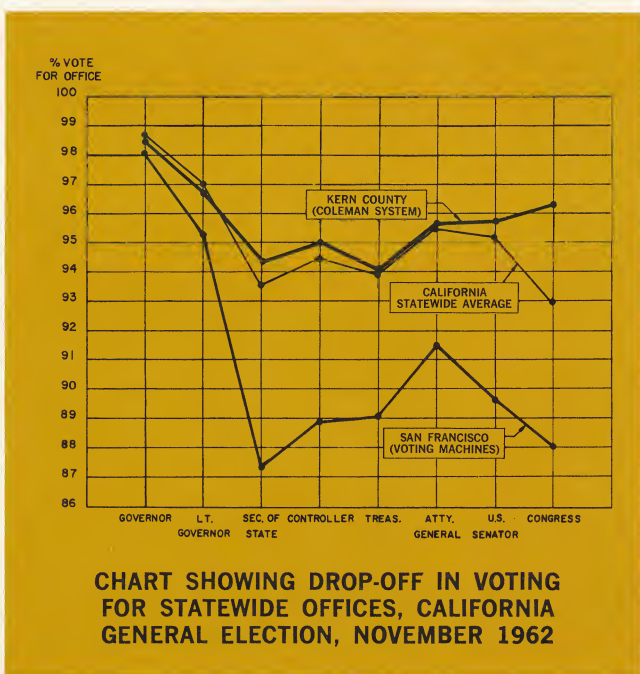
from Iowa, prepared by the Institute of Public Affairs, states: "There is a clear tendency for fewer votes to be cast on special questions when the questions are voted on voting machines rather than on paper ballots." The same conclusion had previously been reached in a study conducted in Minnesota.

Coleman retains the use of paper ballots

The chart below shows the response of voters in Kern County, California, where the Coleman System had its first official use in the November 1962 general election. Voter turnout was above the state average, and there was excellent voter participation in voting all offices on the ballot. Voter habits were not changed, as voters marked the familiar paper ballots.

At the close of election day, ballots were brought from the precincts to the counting center, where the Vote Tally System counted the votes on ballots from all precincts in the county. The day after the Kern County election in which the Coleman Vote Tally System was used, the *Bakersfield Californian* editorialized:

"...The operation of the machine was an unqualified success. Never have the results of the day's voting in this large county been collected, tallied and presented to the public so rapidly and so satisfactorily."

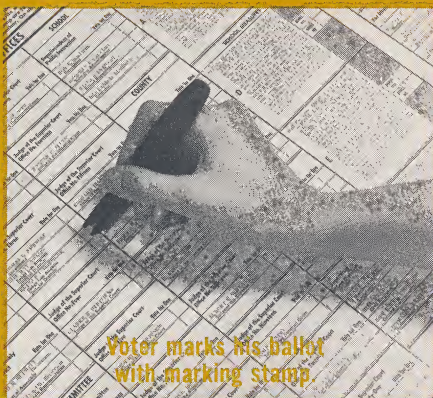


Vote Tally System is easy to program, simple to operate. Automatic checks prevent human error.

Familiar paper ballots
Same voter procedure
Same recount-ability
Only the counting method is changed!

Manual counting by tired precinct boards is eliminated. Ballots are counted by high-speed electronic equipment at the rate of 600 ballots per minute. Less than a minute per precinct. Overvotes for any office or proposition are automatically rejected with-

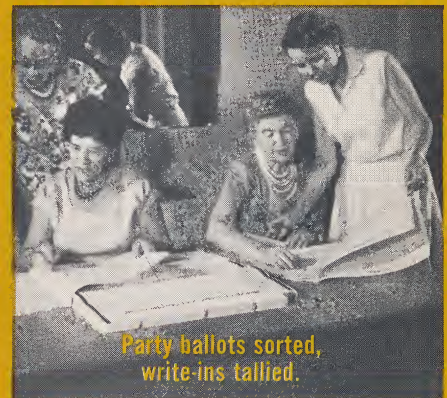
out disturbing the rest of the properly voted ballot. Candidate rotation in any sequence is accommodated. Precinct totals are produced automatically. No manual transcription of any totals. Paper ballots are available for human review or audit at any time.



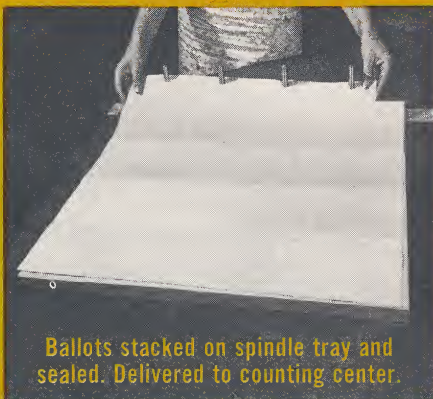
Voter marks his ballot with marking stamp.



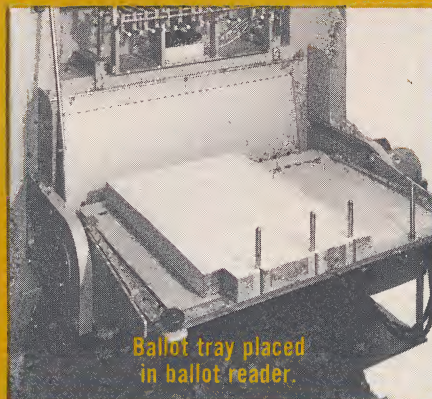
Folded ballot is deposited in ballot box.



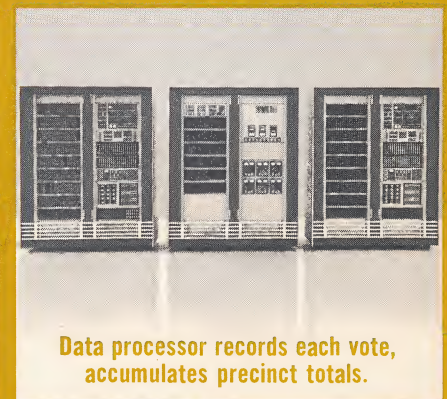
Party ballots sorted, write-ins tallied.



Ballots stacked on spindle tray and sealed. Delivered to counting center.



Ballot tray placed in ballot reader.



Data processor records each vote, accumulates precinct totals.



Precinct totals immediately put on IBM cards — while ballots from next precinct are read.

RESULT:
Typical precinct tallied
in less than a minute

[including set-up, checking, and data processing time]



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IT'S TIME FOR HONEST COMPARISONS

MECHANICAL VOTING MACHINES



VS.

COLEMAN ELECTRONIC VOTE TALLY SYSTEM



Let's give the voting machines due credit. For communities that felt they were compelled to abandon manual tallying of ballots and acquire voting machines, regardless of the costs, the effects on voter habits, and inconveniences to voters, the voting machines have done their part in improving the speed and accuracy of election

returns. ☐ With the development of electronic tallying, however, it is possible to retain the many advantages of paper ballots and to eliminate the disadvantages of manual counting, without resorting to the use of mechanical voting machines. Consider these facts about both methods of tallying:

VOTER HABITS — Familiar paper ballots are used with the Coleman System and none of the voter's traditional habits are changed. He can vote conveniently and unhurriedly. Studies have shown that the use of voting machines has a definite effect on voter habits, resulting in a drop-off in voter participation for many offices and questions on the ballot.

VOTER CONVENIENCE — Voting machines are expensive, so a community cannot afford to place more than a limited number of machines in each polling place. Few machines mean long lines during peak hours, which discourage voter turnout. When the Coleman System is used, an adequate number of inexpensive voting booths can serve each polling place, and there are no long waiting lines to discourage voters.

OPERATION — The Coleman system does not change the vote-casting process in any way. It simply counts the conventional ballots after the polls close. There is no mechanical equipment at the precincts. The voter is never placed in jeopardy of being disenfranchised, as is possible if a precinct voting machine breaks down. Ballots are counted at the counting center by high-speed electronic equipment.

ACCURACY — The Coleman Vote Tally System has been certified by the Sigma Corporation — an independent engineering firm appointed by the State of California — to be 99.999% accurate. The System has probably had more tests for accuracy than any system of vote counting now in existence. Accuracy statements are based on extensive tests involving millions of votes, not on assumptions and unsubstantiated claims. Accuracy checks can be made at periodic intervals during the vote counting procedure, a feature not possible with voting machines. Precinct totals are handled automatically — there is no manual copying of totals and no possibility of human error.

TRANSPORTATION COSTS — The Coleman System completely eliminates the expense of delivering heavy machines to each polling place and returning them to storage warehouses after the election.

EQUIPMENT STORAGE — Storage space between elections is a continuing cost. The Coleman System uses only a small portion of the square footage required for the number of voting machines needed to handle an equivalent load.

RECOUNTS — Because the Coleman System uses the traditional ballot, the vote and intent of every individual citizen is always available for review or recount. This recount-ability is not possible, obviously, with voting machines. Mechanical machine counting can be aptly compared to operating an adding machine without a checking tape.

ELECTION COSTS — A Coleman System has a lower first-cost than the number of voting machines needed to do an equivalent amount of work. Coleman counts *fast* — less than a minute for a typical precinct — and an increase in voter population can be accommodated with no significant added investment. For example, an influx of 600 new voters merely increases the tallying time by a minute on one system. Further, it permits the enlargement of the ballot beyond the capacity of all but the largest voting machines. The Coleman System eliminates any need for training precinct workers in the intricacy of machine devices.

When *all* costs are considered — first cost, warehousing, transportation, maintenance and personnel — the Coleman System will be found to be much more economical than mechanical voting machines, and in most cases is more economical than manual tallying.